Bay Delta Conservation Plan ("Water-Fix") Supplemental Draft EIS
Briefing Paper – September 14, 2015

Background

- The originally proposed Bay Delta Conservation Plan was presented as a habitat conservation plan to support a 50 year incidental take permit for changes to the state and federal water facilities that export water out of the California Bay Delta estuary. The changes included new intakes and twin 40 mile diversion tunnels, as well as a very large scale aquatic habitat restoration program. The lead federal agencies included NMFS, USFWS, and BOR. CA Department of Water Resources was, and remains, the state lead agency.

- In August of last year, EPA was prepared to give an **Ex. 5 - Deliberative** o the BDCP DEIS, based on significant concerns with the project's environmental impact and lack of information.

- The lead agencies agreed to do a Supplemental DEIS in light of EPA's and others' concerns.

- In April 2015, the project proponent and lead agencies abandoned the plan to seek approval for a 50 year incidental take permit, and instead, focused on a more limited project centered on the construction of new intake facilities and the tunnel conveyance (adopting the new name "Water-Fix"); habitat restoration is no longer a component of the project. BOR is now the only lead federal agency. BOR intends, as its federal action, to modify operations to accommodate the proposed new intake and conveyance facilities.

- The scaled-down proposal (identified as the Preferred Alternative in this SDEIS) is a completely different federal action than the federal action proposed in the original DEIS.

- Separately, EPA is currently reviewing a court-ordered DEIS that evaluates BOR's implementation of the 2008/2009 Biological Opinions for the continued coordinated operations of the water projects (comments due Sept 29).

Regulatory context

Our NEPA letter will precede a number of pending critical decisions by other agencies. Water project operations have largely been run by the ESA and CA State Water Resources Control Board regulatory mandates for the past 25 years and successive jeopardy opinions have reduced exports during that time; this is expected to continue. For that reason, evaluating the true environmental impact of the proposed tunnels is very difficult in the absence of expected revised regulatory actions. It is important that any letter we submit supports advancing the goals of the Clean Water Act and these regulatory processes.

Action	Actual/Expected Date	EPA's Expected Action
BDCP/CA WaterFix Supplemental DEIS published for public review	July 17, 2015	NEPA/309 comments and rating to BOR by October 30, 2015
Corps Public Notice of DWR's CWA 404 permit application	Sept 9, 2015	3(b) ARNI Letter to Corps by Oct 9, 2015
State Water Board public notice of the change in the point of diversion petition (submitted by DWR and BOR on 8/26/15), which will include an anticipated schedule for processing the petition.	Fall 2015 through 2016	None
Reclamation to publish Biological Assessment for CA WaterFix	BA late October 2015/BiOp Spring 2016	None
State Water Board to issue 401 Water Quality Certification	2016	None
Corps to issue 404/408 permits	TBD	May be preceded by a request to elevate
State Water Board to update Water Quality Control Plans (water quality standards/flows)	Phase I (Winter 2015/2016); Phase II (2016/2017); Phase III & IV (TBD)	Review and approval/disapproval of change to wqs

Context: Evaluating Projects in a Collapsing Estuary

There are benefits to the aquatic ecosystem from the WaterFix project. The SDEIS estimates that using the new intake facilities would reduce fish entrapment into poor habitats and fish entrainment into the CVP/SWP system by establishing biological criteria for operation, installing state-of-the-art fish screens, and reducing reverse flows in Old Middle River. The SDEIS also shows that water supply reliability is improved by transporting water in twin tunnels thereby minimizing the risk of sea level rise, levee collapse, seismic instability, and salt water intrusion for CVP/SWP exports.

Additionally, Governor Brown's separate EcoRestore initiative calls for State agencies to pursue the restoration and stewardship of 30,000 acres of floodplains, riparian forests, and wetlands within the Delta for the benefit of fish and wildlife species, and to arrest or reverse the subsidence of Delta islands. In 2015, the Delta Conservancy and the California Department of Fish and Wildlife (CDFW) will, together, award up to $40.7 million in Proposition 1 monies to eligible parties to advance the collective restoration goals, and, in doing so, will launch one of the most ambitious restoration efforts ever attempted in the United States.

Despite these efforts, the DEIS and SDEIS show aquatic resources in the Bay Delta Estuary in a downward trend. This historic decline in aquatic resources is due to multiple stressors, including operations of the federal and state water export facilities, and is anticipated to be aggravated by the impacts of climate change. The quality and quantity of aquatic habitat for fish (spawning, rearing, and/or migration) is estimated to be "substantially reduced" for 84% of the fish (16 of 19) evaluated in the SDEIS relative to current conditions in the estuary.

Two of the most critical factors which could impact the downward trend are increasing outflow through

the Delta to support resident and migratory species, and habitat restoration. The Preferred Alternative in the SDEIS does not propose additional outflow and no longer addresses habitat restoration.

Environmental and Analysis Issues:

A. Water Quality
   1. Increased salinity in Western Delta; will make more difficult to meet WQS, esp. during drought
   2. Increased exceedances of the aquatic life EC standard at Prisoners Point
   3. May affect hundreds of acres of wetlands and mitigation is not defined
   4. Increases selenium exposure

B. Fisheries/Beneficial Use protection
   1. Entrainment of most fish species into the CVP/SWP facilities will be reduced.
   2. Quantity and quality of aquatic habitat reduced for most fish species relative to today's conditions.
   3. Quantity and quality of aquatic habitat potentially reduced for a few fish species relative to the future, degraded baseline.

C. NEPA Analysis
   1. Uncertain, severely degraded future baseline; demonstrates that the project will make conditions unchanged or only slightly "less bad" than already bad future conditions
   2. Modeling was not based on the proposed project or the baselines
   3. No analysis of impacts on X2 ecosystem indicator
   4. Project operations are still undefined pending Section 7 consultations.
   5. Lack of optimized operations for each sized tunnel

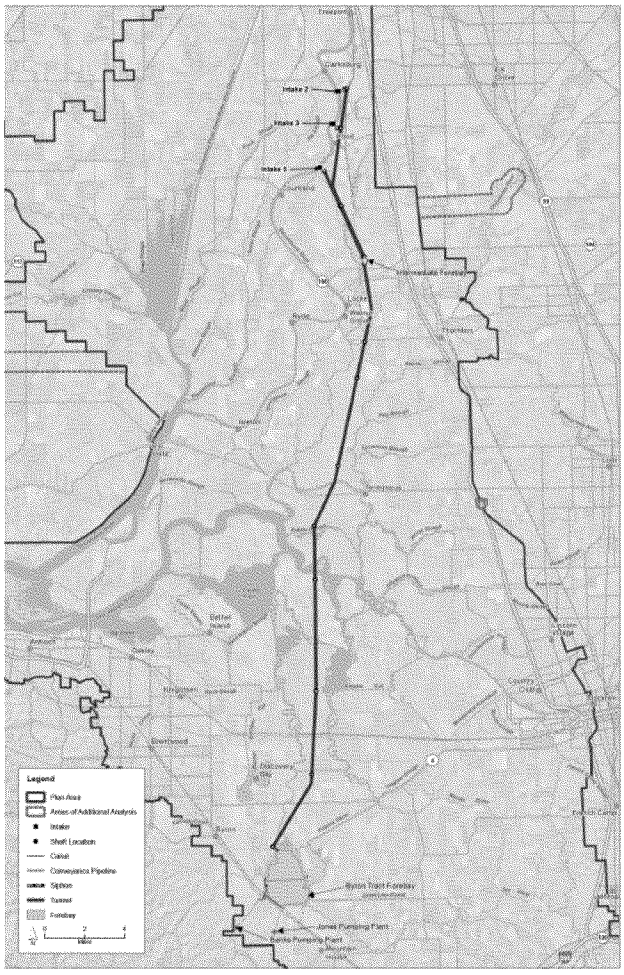
Recommendation re: Rating

- **The region believes that, at minimum, the SDEIS warrants an** Ex. 5 - Deliberative
  - The decline of the Bay-Delta is attributable to numerous factors, including operations of the current federal and state water export systems; the projects' changing facilities and operations allow that trajectory to continue or worsen.
  - Modeling was not based on the proposed project, and potentially environmentally preferable alternatives were not evaluated with optimized operations, as were other alternatives.

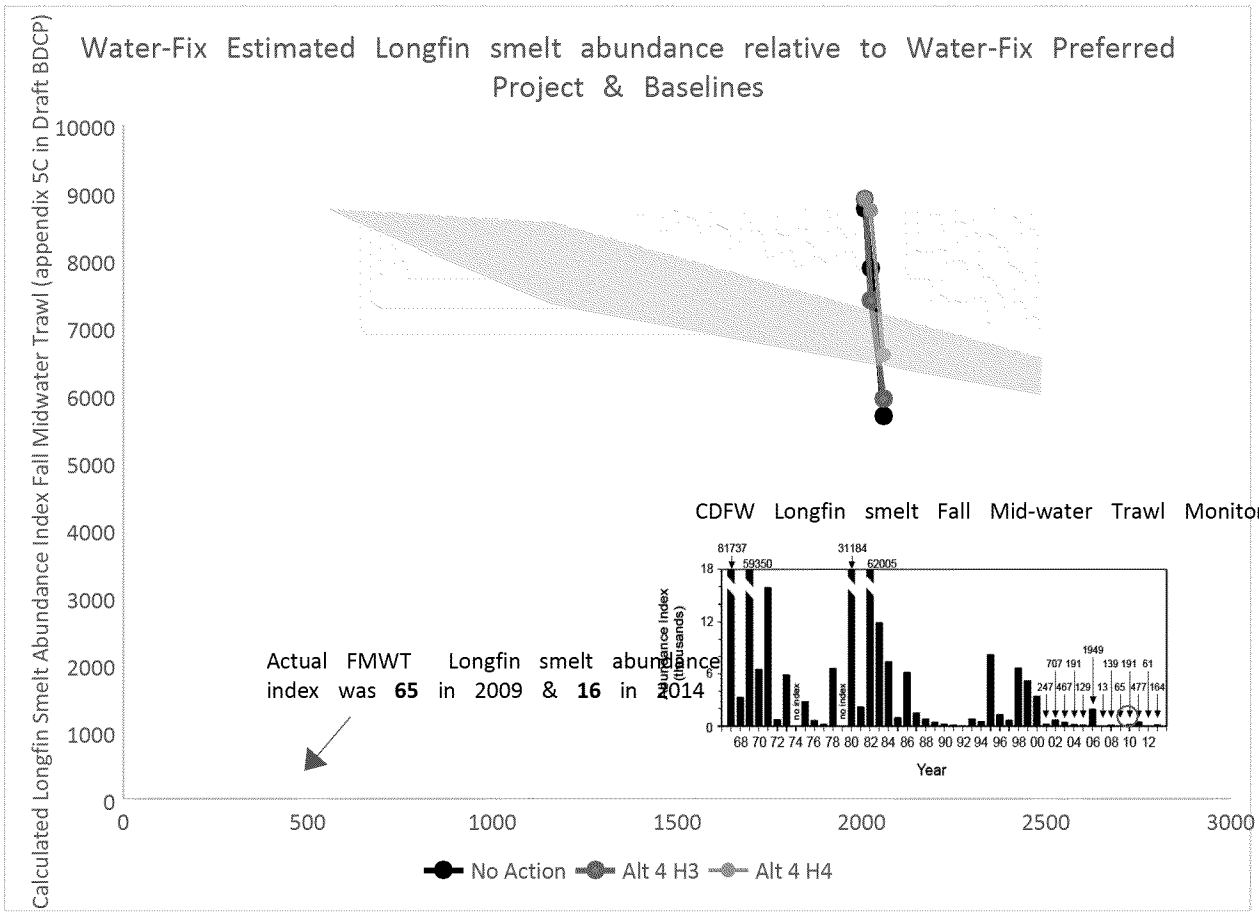
- Ex. 5 - Deliberative **may also an option, based on the lack of modeling for the proposed project and the failure to analyze optimized environmentally preferable alternatives.**

- **Regardless of rating, include language in the letter which clearly articulates our concerns so as to support anticipated federal and state regulatory actions under CWA, ESA, and state law.**

Attachment 1:


Intake 2
Intake 3
Intake 5
Byron Tract Forebay
Banks Pumping Plant
Legend
Plan Area
Areas of Additional Analysis
Intake
Shaft Location
Canal
Conveyance Pipeline
Siphon
Tunnel
Forebay

Attachment 2:



Attachment 3:

Table 1: Impacts to Quality and Quantity of Aquatic Habitat and Fish Species from Alternative 4A Relative to Existing Conditions Baseline (current conditions)

Fish Species	Impact Categories			
	Entrainment	**Spawning**	**Rearing**	**Migration**
Delta smelt (*T/E*)	significant	similar	substantially increased	similar
Longfin smelt (c/*T*)	substantially improved	substantially reduced - abundance loss of 6-22%		
Chinook Salmon winter run (*E/E*)	potentially improved	substantially reduced	similar	substantially reduced
spring Run (*T/T*)	improved	substantially reduced	substantially reduced	similar
fall-/late fall-run (*C/C*)	improved	substantially reduced	substantially reduced	substantially reduced
Steelhead *(T/)*	improved	substantially reduced	substantially reduced	substantially reduced
Sacramento splittail *(/C)*	similar	similar	similar	similar
Green sturgeon *(T/C)*	potentially improved	substantially reduced	substantially reduced	substantially reduced
White sturgeon *(/C)*	potentially improved	substantially reduced	similar	substantially reduced
Pacific lamprey *(/C)*	potentially improved	similar	substantially reduced	similar
River lamprey *(/C)*	potentially improved	similar	substantially reduced	similar*
Striped bass	significant & unavoidable	similar	significant	similar*
American shad	significant & unavoidable	similar	potentially significant	similar*
Threadfin shad	improved	similar	Similar	similar*
Sacramento Tule perch	N/A	similar	substantially reduced	N/A
Sacramento San Joaquin roach	N/A	similar	significant	similar
Hardhead	N/A	similar	significant	similar
Bay shrimp	N/A	similar	significant 2-10% abundance loss	similar

(Federal ESA/State ESA) **E** (endangered), **T** (threatened), **C** (species of special concern), **c** (candidate for listing)

* Text in analysis indicates the potential for significant reduction and does not match the conclusions

Table 2: Impacts to Quality and Quantity of Aquatic Habitat and Fish Species from Alternative 4A Relative to No Action Alternative (NEPA Baseline forecasts future degraded conditions)

Fish Species	Entrainment	Spawning	Rearing	Migration
Delta smelt (*T/E*)	improved	similar	similar	not adverse*
Longfin smelt (*c/T*)	improved	not adverse* - abundance change -11% to +7%		
Chinook Salmon winter run (*E/E*)	improved	similar	similar	potentially reduced**
spring Run (*T/T*)	improved	similar	similar	similar
fall-/late fall-run (*C/C*)	improved	similar	similar	similar
Steelhead *(T/)*	improved	similar	similar	similar
Sacramento splittail *(/C)*	improved	similar	similar	similar
Green sturgeon *(T/C)*	improved	similar	similar	potentially reduced**
White sturgeon *(/C)*	improved	similar	similar	potentially reduced**
Pacific lamprey *(/C)*	improved	similar	similar	similar
River lamprey *(/C)*	improved	similar	similar	similar
Striped bass	increased	similar	similar	not adverse*
American shad	increased	similar	similar	not adverse*
Threadfin shad	improved	similar	similar	not adverse*
Sacramento Tule perch	N/A	similar	similar	similar
Sacramento San Joaquin roach	N/A	similar	similar	similar
Hardhead	N/A	similar	similar	similar
Bay shrimp	N/A	similar	similar	similar

(Federal ESA/State ESA) **E** (endangered), **T** (threatened), **C** (species of special concern), **c** (candidate for listing)
*text in DEIS/DSDEIS analysis does not match conclusion; **more information developed in ESA Section 7 process